Internal migration in ASIA: a cross-national comparison

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Aims

This presentation:

▪ To provide a progress report on the IMAGE-Asia project

IMAGE-Asia:

▪ Develop a comprehensive understanding of the way in which internal migration varies between the countries of Asia

▪ Build capacity in the analysis of internal migration data and migration dynamics among Asia-based researchers
Project Structure

- Builds on the Global IMAGE project funded by the Australian Research Council, 2011-2015
- Project Inception, ADRI Forum, Shanghai June 2017
- Two day workshop funded by ADRI, invited scholars, from 20 countries, Shanghai, July 2018
- Refinement, revision, rewriting and updating country-specific contributions
- Preparation of an edited volume, to be published by *Springer*, mid-2020
Internal migration in the countries of Asia: levels, ages and spatial impacts

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The Global IMAGE Project – Key Features

An international collaborative program which developed a robust framework for comparing internal migration between countries.

### Data Inventory
- Identified types of migration data and who collects what

### Data Repository
- Assembled global collection of internal migration datasets

### Migration metrics
- Developed suite of robust migration indicators

### Analytical methods
- Resolved key methodological issues – eg MAUP

### Outcomes
- Multinational data repository on GITHUB
- Bespoke analytical software (IMAGE Studio) on GITHUB
- Papers on methods and metrics
- Papers comparing countries on key aspects of migration
- Regional papers – Latin America, Europe, Asia

Links and references at: [https://imageproject.com.au](https://imageproject.com.au)
**Why IMAGE-Asia??**

- Global IMAGE project deliberately quantitative – delivered rigorous metrics on migration to match eg TFR, LE, and enable creation of national league tables.
- Sought explanation via associations with other national indicators, eg GDP, HDI.
- But scale and pattern of migration is also shaped by national and local contexts.
- Nuanced explanation calls for subtle blending of robust metrics with understanding of contextual forces.
- IMAGE-Asia attempts this by embedding IMAGE migration metrics in bespoke analyses written by selected country experts but using a clearly structured format.
- Country experts bring to bear local knowledge but also include local datasets – eg surveys - to supplement analysis and aid interpretation.
The IMAGE-Asia Community

- 47 UN member states spanning 160 degrees of longitude and embracing multiple languages, cultures, histories, political systems and levels of development.
- Not all collect migration data; several war-torn; some lack professional contacts; some un-responsive
- 18 countries attended 2018 Shanghai workshop; 15 delivered chapters.

| Armenia (??) | Kazakhstan ?? |
| Bhutan       | Mongolia ?   |
| Cambodia     | Myanmar      |
| China        | Nepal ??     |
| India        | South Korea  |
| Iran         | Sri Lanka ?  |
| Israel       | Thailand     |
| Japan        |              |
Three Dimensions of Migration

The IMAGE Project identified five dimensions of migration: *Intensity, Distance, Selectivity, Impact, Connectivity*. IMAGE–Asia focuses on three of these, each of which provides a unique perspective on population mobility:

- Overall migration intensity – the level or rate of movement – the propensity to move
- The age profile of migration, especially the age at which migration peaks
- The spatial impact of migration - its effect in redistributing population and changing the pattern of human settlement
Measuring Migration Intensity

- ‘Intensity’ encompasses both ‘rates’ and ‘probabilities’

- CMI – Crude migration intensity: \( CMI = 100 \times \frac{M}{P} \) where
  - \( M \) = number of migrants or migrations in an interval
  - \( P \) = population at risk (start of interval for transitions)

- Can calculate for any spatial scale –
  - But result depends on spatial scale and observation interval

- Only comparable figure is \textit{ALL} changes of address, irrespective of distance moved – ACMI (Aggregate CMI)

- Few countries collect this directly so we use a method devised by Courgeau \textit{et al.} (1973/2012) to estimate it for other countries
Courgeau, Bell and Muhidin (2012) demonstrated a linear relationship between CMI and log of average number of households per zone.

IMAGE Studio provides a framework to generate additional observations for different levels of scale and different spatial patterns.
Aggregate Crude Migration Intensities in Asia

The ACMI is a measure or estimate of ALL changes of address over a five year period and so is directly comparable between countries.
Measuring Age Composition

Rogers and colleagues (1978, 1983) identified global regularities in the age profile of migration that appear to hold irrespective of spatial scale.

Migration peaks among young adults, falls at older ages and among teenagers, and rises again among children, sometimes with a peak in retirement and/or a rise in old age.

Later research revealed marked variations in the age and intensity at the peak.
Global Variations in the Age Profile of Migration

Explained by differences in the timing of the transition to adulthood:
- Education
- Partnership
- First job
- Fertility

Variations in Migration Age Profile in Asia

![Graph showing variations in migration age profile in Asia with countries marked on a scatter plot.](image-url)
Measuring the Spatial Impact of Migration

*Index of Net Migration Impact (INMI)* (Rees et al 2016)

- Measures the net impact of migration in redistributing population between regions.
- Based on the Aggregate Net Migration Rate (ANMR) which links the CMI (migration intensity) with the MEI (migration effectiveness index): $\text{ANMR} = \text{CMI} \times \text{MEI}$
- INMI generalises this equation so that it measures redistribution at all spatial levels and is therefore comparable across countries.
Comparing Redistribution across Countries

Index of Net Migration Impact

- Compares countries on extent of redistribution
- Scaled to average of all Asian countries as reference category so that Index of 1.0 is average for all countries

Spatial Impact Depends on Intensity and Effectiveness

Index of Net Migration Impact
- compares countries on extent of redistribution
- Index of $r=1.0$ is average for all countries
- Shows relative contributions of intensity and redistribution

Beyond the Simple Rural-Urban Dichotomy

- Few countries collect useable data on rural urban migration
- We use population density as a proxy for urbanisation
- Plot net migration rate against density for each region
- Slope of regression line indicates direction and strength of redistribution
Phases in population redistribution
1 - Early urbanization
2 - Mature urbanization
3 - Late urbanization
4 - Counter-urbanization
5 - After the transitions:
   (a) Re-urbanization
   (b) De-urbanization
   (c) Dynamic equilibrium

Commonalities and Differences

Common Theoretical Frameworks (all countries):
- Economic development; Urban transition; Transition to adulthood

Forces shaping migration in some countries, some times
- Sporadic events - natural disasters, military conflict, political upheaval
- Interactions with other forms of mobility – circulation, international migration
- Gender roles; ethnic composition
- Strength of particular reasons for migration – eg military service, marriage, education, displacement
- Government policy instruments, controls and constraints
- Cultural norms and expectations
- Historical inertia
Common Chapter Structure

The editors devised a common structure for each substantive chapter to facilitate comparability:

1. **Introduction** (300-500)
2. **Internal Migration Data** (500-700)
3. **The Spatial Framework** (500-700)
4. **Prior Research** (500-700)
5. **How Much Movement? - Migration Intensity** (700-900)
8. **Understanding Internal Migration** (800-1000)
9. **Impacts and Implications** (500-700)
10. **Conclusions** (500)

In addition, each chapter utilises a series of common graphics and tables.
Publication

Format of the book

• Chapter 1: Introduction
• Chapter 2: Conceptual Framework – (3)
• Chapter 3: Methods of Analysis
• Chapter 4-18: Country chapters
• Chapter 19: Conclusions

Publication

• Springer Nature – mid 2020
• Approx 400 pages
• Hardcopy, POD and E-copy
• All colour
• Copies to all authors
• Individual chapters can be purchased
IMAGE Project Resources 1

Electronic Resources
IMAGE Studio software and datasets: https://github.com/IMAGE-Project

USER Guides

Technical Papers
Thematic Papers
Thematic Papers (continued)


Regional Analyses


